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The invention claimed is:

1. A dough divider comprising:

a hopper with a lid, the lid having an open position and a closed position;

a latch assembly adapted to maintain the lid in the closed position when activated and to discontinue maintaining the lid in the closed position when deactivated;

5 a press plate vertically slidable within the hopper;

the hopper being adapted to accept dough between the lid and the press plate;

the press plate adapted to be driven towards the lid in order to compress the dough between the press plate and the lid within the hopper; and

10 wherein the latch assembly automatically activates to maintain the lid in the closed position while the press plate is being driven towards the lid.

2. The dough divider of claim 1, further including:

a delay device configured to delay the driving of the press plate towards the lid such that the latch assembly is activated a predetermined amount of time before the press plate is driven towards the lid.

3. The dough divider of claim 1, wherein:

the press plate has a vertical stroke between a top of the hopper and a bottom of the hopper; and

5 the press plate is configured to move towards the bottom of the hopper when the pressure applied to a top of the press plate from the dough within the hopper reaches a predetermined level.

4. The dough divider of claim 3, wherein:

the predetermined level is an amount of force greater than an amount of friction between the hopper and the press plate.

5. The dough divider of claim 3, further including:
a reversible cylinder assembly configured to move the press plate between the top of the hopper and the bottom of the hopper.
6. The dough divider of claim 4, wherein:
the reversible cylinder assembly is adapted to move downward in order to allow the press plate to move towards the bottom of the hopper when the pressure applied to the top of the press plate from the dough when the hopper reaches the predetermined level.
7. The dough divider of claim 6, further comprising:
a knife assembly adapted to protrude through the press plate and divide the dough into an equal number of pieces.
8. The dough divider of claim 7, wherein:
the cylinder assembly includes a first rod telescoping with a second rod;
the first rod being connected to the press plate and the second rod being connected to the knife assembly.
9. The dough divider of claim 1, wherein:
the lid is rotatably connected to the hopper and adapted to compress the dough within the hopper.
10. The dough divider of claim 1, further comprising:
a knife assembly adapted to protrude through the press plate and divide the dough into an equal number of pieces.
11. The dough divider of claim 10, wherein:
the knife assembly is configured to divide the dough into 16 pieces.

12. The dough divider of claim 10, wherein:
the knife assembly is configured to divide the dough into 20 pieces.
13. The dough divider of claim 10, wherein:
the knife assembly is configured to divide the dough into 24 pieces.
14. The dough divider of claim 1, further comprising:
a hydraulic assembly adapted to drive the press plate towards the lid.
15. The dough divider of claim 14, wherein:
the hydraulic assembly is further adapted to activate the latch assembly.
16. The dough divider of claim 15, wherein:
the latch assembly automatically deactivates when the latch assembly is not activated by
the hydraulic assembly.
17. The dough divider of claim 1, further comprising:
a reversible cylinder assembly being connected to the press plate and adapted to move
downward in order to allow the press plate to move towards a bottom of the hopper when
pressure applied to a top of the press plate from rising dough when the hopper reaches a
predetermined level.
18. A dough divider comprising:
a hopper with a lid, the lid having an open position and a closed position;
a latch assembly adapted to maintain the lid in the closed position when activated and to
discontinue maintaining the lid in the closed position when deactivated;
a press plate vertically slidable within the hopper;
the hopper being adapted to accept dough between the lid and the press plate;
the press plate adapted to be driven towards the lid in order to compress the dough

between the press plate and the lid within the hopper;

10 wherein the latch assembly automatically deactivates to discontinue maintaining the lid
in the closed position after the dough has been compressed and divided within the hopper.

19. The dough divider of claim 18, wherein:

the press plate has a vertical stroke between a top of the hopper and a bottom of the
hopper; and

5 the press plate is configured to move towards the bottom of the hopper when the
pressure applied to a top of the press plate from the dough when the hopper reaches a
predetermined level.

20. The dough divider of claim 19, wherein:

the predetermined level is an amount of force greater than an amount of friction
between the hopper and the press plate.

21. The dough divider of claim 19, further including:

a reversible cylinder assembly configured to move the press plate between the top of
the hopper and the bottom of the hopper.

22. The dough divider of claim 21, wherein:

the cylinder assembly is adapted to move downward in order to allow the press plate to
move towards the bottom of the hopper when the pressure applied to the top of the press plate
from the dough within the hopper reaches the predetermined level.

23. The dough divider of claim 22, further comprising:

a knife assembly adapted to protrude through the press plate and divide the dough into
an equal number of pieces.

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24. The dough divider of claim 23, wherein:
the cylinder assembly includes a first rod telescoping with a second rod; the first rod being connected to the press plate and the second rod being connected to the knife assembly.
25. The dough divider of claim 18, wherein:
the lid is rotatably connected to the hopper and adapted to compress the dough within the hopper in the closed position.
26. The dough divider of claim 25, wherein:
a coil spring connected to the lid automatically rotates the lid to the open position when the latch assembly is deactivated.
27. The dough divider of claim 18, further comprising:
a knife assembly adapted to protrude through the press plate and divide the dough into an equal number of pieces.
28. The dough divider of claim 27, wherein:
the knife assembly is configured to divide the dough into 16 pieces.
29. The dough divider of claim 27, wherein:
the knife assembly is configured to divide the dough into 20 pieces.
30. The dough divider of claim 27, wherein:
the knife assembly is configured to divide the dough into 24 pieces.
31. The dough divider of claim 18, further comprising:
a hydraulic assembly adapted to drive the press plate towards the lid.

32. The dough divider of claim 31, wherein:
the hydraulic assembly is further adapted to activate the latch assembly.

33. The dough divider of claim 18, further comprising:
a reversible cylinder assembly being connected to the press plate and adapted to move downward in order to allow the press plate to move towards a bottom of the hopper when pressure applied to a top of the press plate from rising dough within the hopper reaches a predetermined level.

34. The dough divider of claim 18, further comprising:
an actuating mechanism for driving the press plate towards the lid when activated;
wherein the latch mechanism is automatically deactivated to discontinue maintaining the lid in the closed position when the actuating mechanism is not activated.

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